

Claims

1. A receiver medium for digital imaging, comprising a substrate having a dye-receiving surface bearing a coating comprising a highly branched functionalised polymer of generally globular form dispersed in a host polymer, wherein the host polymer has a Tg of $<50^{\circ}\text{C}$.

2. A receiver medium according to claim 1, wherein at least some of the end groups of the highly branched polymer carrying functional groups selected from OH, NH_2 , NHR, NR_2 , COOH, CONH_2 , NHCOR, CONHR, SO_2NH_2 , SO_2NHR , SO_3H , NHCONH_2 , NHCONHR , $=\text{NOH}$ and PO_3H , in which R is selected from CH, NO_2 , Cl, F, Br, $\text{C}_{1-6}\text{alkyl}$, $\text{C}_{1-6}\text{alkoxy}$, $\text{NHCOC}_{1-6}\text{alkyl}$, NHCophenyl , $\text{NHSO}_2\text{alkyl}$, $\text{NHSO}_2\text{phenyl}$ and aryloxy, and preferably from the groups having at least one H atom.

3. A receiver medium according to claim 1 or 2, wherein at least 50%, preferably at least 70%, of the end groups of the highly branched polymer carry functional groups.

4. A receiver medium according to any one of the preceding claims, wherein the highly branched polymer has a molecular weight of at least 1000.

5. A receiver medium according to any one of the preceding claims, wherein the radius of gyration of the highly branched polymer is in the range 2 to 10nm.

6. A receiver medium according to any one of the preceding claims, wherein the host polymer is selected from polymers including polyesters, acrylic polymers, vinyl polymers, poly(vinyl pyridine), vinyl pyrrolidone/vinyl acetate, vinyl chloride/vinyl acetate copolymers, and cellulosic polymers.

7. A receiver medium according to any one of the preceding claims, when the highly branched polymer is present in an amount in the range 10 to 90%, preferably 20 to 60%, by weight of the coating.

8. A receiver medium according to any one of the preceding claims, wherein the substrate is in the form of a film or sheet of material.
9. A receiver medium according to any one of the preceding claims, wherein the substrate is pre-treated prior to application of the coating.
10. A receiver medium according to any one of the preceding claims, wherein the coating has a thickness in the range $1\mu\text{m}$ to $100\mu\text{m}$, preferably $50\mu\text{m}$ or less, especially in the range from $2\mu\text{m}$ to $10\mu\text{m}$, for media for use in thermal dye transfer printing and in the range $10\mu\text{m}$ to $50\mu\text{m}$ for media for use in ink jet printing
11. A receiver medium according to any one of the preceding claims, wherein the coating includes particulate filler material.
12. A receiver medium according to any one of the preceding claims, including a top coat over the coating.
13. A receiver medium according to any one of the preceding claims, including one or more back coats on the side of the substrate remote from the dye-receiving surface.
14. A method of making a receiver medium, comprising applying to a dye-receiving surface of a substrate a coating comprising a highly branched functionalised polymer of generally globular form dispersed in a host polymer, wherein the host polymer has a $T_g < 50^\circ\text{C}$.
15. A method of printing, comprising applying dye to the dye-receiving surface of receiver medium in accordance with any one of claims 1 to 13 by a digital imaging technique.
16. A digital imaging receiver medium/dye combination in which the receiver medium comprises a substrate having a dye-receiving surface bearing a coating comprising a highly branched functionalised polymer of generally globular form dispersed in a host polymer having a $T_g < 50^\circ\text{C}$, and the dye is capable of interacting with the highly branched polymer.

17. A combination according to claim 16, wherein the receiver medium is in accordance with any one of claims 2 to 13.

18. A combination according to claim 16 or 17, wherein the dye has functional groups complementary to functional groups of the highly branched polymer.

19. A combination according to claim 16, 17 or 18, wherein the highly branched polymer and dye are capable of interacting by acid-base reaction.

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